

## DESCRIPTION OF PLATES.

All the specimens figured are the property of the Tulane University.

## PLATE X.

Fig. 1. Superior molars of *Myiodon harlanii* Ow., from separate teeth ; nat. size, from below.

Fig. 2. *Myiodon harlanii* Ow., grinding face of inferior m. iii from above.

Fig. 3. *Myiodon renidens* Cope, maxillary bone with teeth, from below.

Fig. 4. *Myiodon sulcidens* Cope ; Inferior molar iii profile ; *a* from above.

## PLATE XI.

Fig. 5. *Myiodon renidens* Cope ; *a, b, c*, Inferior molars ii, iii and iv from above.

Fig. 6. *Myiodon renidens* Cope ; third inferior molar.

Fig. 7. *Myiodon sulcidens* Cope ; *a*, superior m. iv from below ; *b*, superior m. iv from inner side.

Fig. 8. *Equus intermedius* Cope, last five superior molars from below ; nat. size ; with posterior extremity of maxillary bone.

## PLATE XII.

Fig. 9. *Equus intermedius* Cope ; Symphysis mandibuli from above ; nat. size.

Fig. 10. *Equus intermedius* Cope, basioccipital and part of the basisphenoid and adjacent regions ; nat. size.

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*An Early Essay on Proportional Representation.*

*By Edmund J. James*

*(Read before the American Philosophical Society, December 6, 1895.)*

On May 3, 1844, the American Philosophical Society, of Philadelphia, gave Thomas Gilpin, Esq., permission to read a printed paper, entitled, "On the Representation of Minorities of Electors to Act with the Majority in Elected Assemblies." The paper had been printed by the author at his own expense and dedicated to the Society. The date at the end of the paper is May 1, 1844 ; in the dedication May 3, 1844.

Two copies of the pamphlet are in the Philadelphia Library ; one is reported to be in the Boston Athenæum Library ; one is in the Harvard College Library ; one in the Franklin Institute Library ; one in the library of James Monaghan, of West Chester, and there are probably also copies in other libraries. It is a small pamphlet of fifteen pages and was reprinted in the *Penn Monthly* in 1872.

This paper is remarkable as being one of the first systematic discussions

of the plan now known as minority, or proportional, representation. The paper antedates Thomas Hare's earliest essays on the subject of minority representation by thirteen years; and that of James Garth Marshall by almost ten years.

The author wrote in a city, the members of whose legislative body, called councils, were elected at the time on a general ticket by a majority of the votes. The results had been unsatisfactory. It seemed to Gilpin that such a plan was based on two principles, one of which was sound, and the other unsound. It is right that the majority shall govern, but not right that the voice of the minority shall be unheard. He, therefore, undertook to examine the question whether a legislative assembly can be so elected as to represent the respective interests of the community *in deliberation* and to allow to the majority that control *in its decisions* to which it is entitled.

The political evils from which the city of Philadelphia suffered at that time seem to be the same as at present—bossism and the subordination of local to national issues. The caucus comes in for severe criticism, and one of the arguments the author advances for his system is, that in his opinion, it would prevent “those hasty and unjust displacements from office which have taken place by granting to the successful party all the benefits of office, so offensive to the sentiments and feelings of a large and independent part of the community, desirous only of a steady, just and impartial administration of government.” From which it would seem as if the spoils system had already become firmly established in Philadelphia by 1840, or even earlier.

The system of election by a majority, as distinct from plurality, vote, the author thinks was occasioning many evils—not the least among them that of giving to a small third party an entirely disproportionate influence when the two great parties were nearly equal in numbers. Thus, he said, the system of majority voting in Massachusetts had thrown an entirely undue power into the hands of the abolitionists, who, by giving their support first to one party and then to another, could practically make their own terms, and was thus forcing both the other parties to become radical on the slavery issues, when otherwise neither of them would have been so. Nor did he think that the plan of plurality voting, just then adopted by Massachusetts, as a remedy for this evil, would help matters—on the contrary, it would make it worse, since it might give to a party, absolutely in the minority, the power of controlling the public policy of the community, without consulting the other parties at all.

The plan proposed by the author was very simple. Each party was to put up its candidates as usual, a number equal to the whole number to be elected. The voting was to go on in the usual way, each voter having one vote for each of, say, twenty men—that was the number then in Councils. After the election each party was to have a number of representatives assigned to it, bearing the same ratio to twenty, as its vote

bore to the total vote. The names standing first on the party list should be declared elected until the number assigned to the party should be exhausted. The system is worked out in considerable detail in the pamphlet. It is practically the Free List System, which has been adopted of late in portions of Switzerland.

There is no indication in the proceedings of the American Philosophical Society that the paper was discussed in that body, either at that time or later; nor is it very apparent from the history of the time what the immediate occasion was which gave rise to the paper. The subject of representative reform was, of course, on the tapis at the time. The law of Congress requiring the States to be divided into single-member districts had only just been passed, after great excitement in Congress, in answer to a demand for fairer representation and a chance for the minority. It is quite possible that more detailed researches will show that these ideas were advanced by earlier writers during the discussions incident to this act of Congress. At present they seem, in this form at any rate, to have been original with Thomas Gilpin; even if they had been advanced before by writers and thinkers in Europe, which does not yet appear.

Hare does not mention having seen this pamphlet, though the expressions, *quota* and *representative quota*, are here used much in the Hare sense. J. Francis Fisher, of Philadelphia, in his *Degradation of Our Representative System and Its Reform* (Philadelphia, 1863), claims to have worked out a plan similar to Hare's before the latter had published anything upon the subject. In such case he may have been indebted to Gilpin, or at least to the discussion which Gilpin started, for the fundamental thought; but if so, he forgot to give Gilpin credit for it. Fisher was also a member of the Philosophical Society and may have heard Gilpin's paper. He must have known of Kane's claim for Gilpin, in the obituary notice of the latter, read before the Society, February 17, 1854, in which he said that Gilpin had proposed the first matured plan for minority representation, which had gained public attention among us. Indeed, Fisher could hardly have escaped seeing the pamphlet itself, as Gilpin doubtless sent copies to all his colleagues in the Society.

Salem Dutcher, in his *Minority or Proportional Representation*, speaks of it as the first essay on the subject of Minority Representation in English, and states that only one copy was known to be in existence.

Thomas Gilpin, the author of the paper—which, whether the first or not, is certainly an early and cogent argument for the principle of fair play for the minorities—was born in Philadelphia in 1776, and died in the same city in 1853. He was a successful paper manufacturer, and has the credit of having introduced many improvements into that branch of industry in this country. He came of good old Quaker stock. His father, Thomas Gilpin, was banished from Philadelphia at the outbreak of the Revolution on account of supposed sympathy with England. He had felt in his life the bitterness of belonging to a minority which not only

was unrepresented, but was not even allowed to speak on its own behalf. His son, whose thoughts may have been turned to the subject by the experience of his father, gathered together a series of papers relating to the treatment of these Quakers and published them in 1848, under the title: "Exiles in Virginia, with Observations on the Conduct of the Society of Friends during the Revolutionary War."

Father and son were members of the Philosophical Society, the former, one of the first members; the latter, elected in 1814. Thomas Gilpin was a regular attendant at the meetings of the Philosophical Society, and dedicated other pamphlets than the one on MINORITY REPRESENTATION to the Society, notably one entitled, *An Essay on Organic Remains as Connected with an Ancient Tropical Region of the Earth*.

The history of this pamphlet on proportional representation illustrates in a striking way how there is a time for everything, and how everything must wait for its time. Written at a period when there was a general demand for some kind of reform in our system of representation, it undertook to show how, by adopting a system of proportional representation, the general ticket and caucus system could be made to yield satisfactory results. It failed to accomplish its immediate purpose: and only now, after fifty years, is beginning to bear practical fruit. The caucus system and the single-member district system have not yielded the result hoped for. Whether any scheme of proportional or minority representation can do better, may be a question; but it begins to look as if some such method were destined to have a trial, and in such an event, Gilpin's plan has much to recommend it.

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*Notes on Photographic Testing of Inks.*

*By S. P. Sharples.*

From the committee appointed by the Society to investigate the various methods for the examination of documents.

*(Read before the American Philosophical Society, December 20, 1895.)*

Having had occasion to examine a will for alterations recently, it occurred to me that inks of different composition might have different actinic values. In the case in question, the register allowed the will to be photographed in the presence of one of his officers. A negative was thus obtained, which showed on printing an exact copy of the will. Printed in the ordinary way it served all purposes for the examination of the writing. It showed very plainly the places where alterations had been made, and there was no question but these alterations had been made by the person who wrote the will. He acknowledged that he had